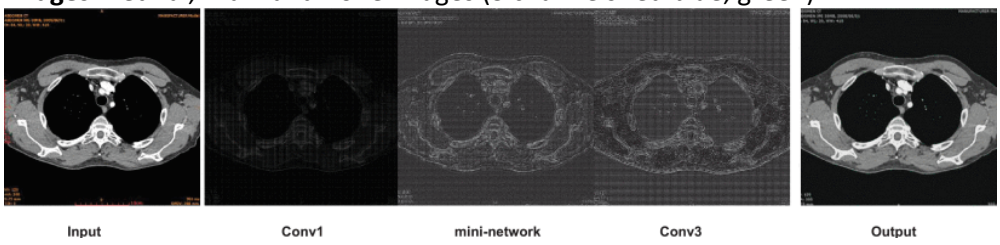
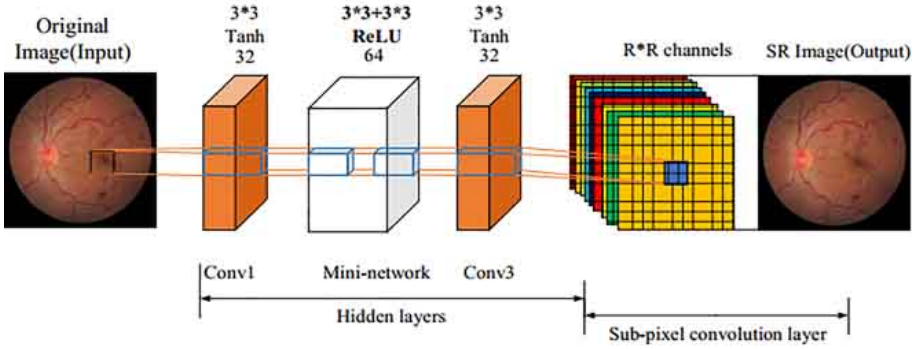
Summary of papers on super-resolution with medical images:

Paper 1. A Fast Medical Image Super Resolution Method Based on Deep Learning Network

- Link
- **Images:** Retinal, Brain and Bone images (3 channels red blue, green)



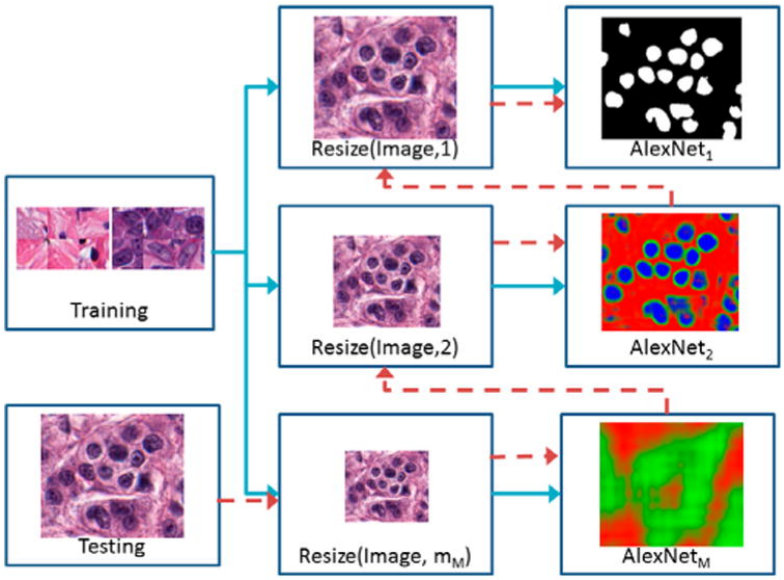
- **Network :** 3 components → sub-pixel convolutional layer + mini-network and hidden layers.



Sub-pixel and mini network designed to shorten time of super-resolution.

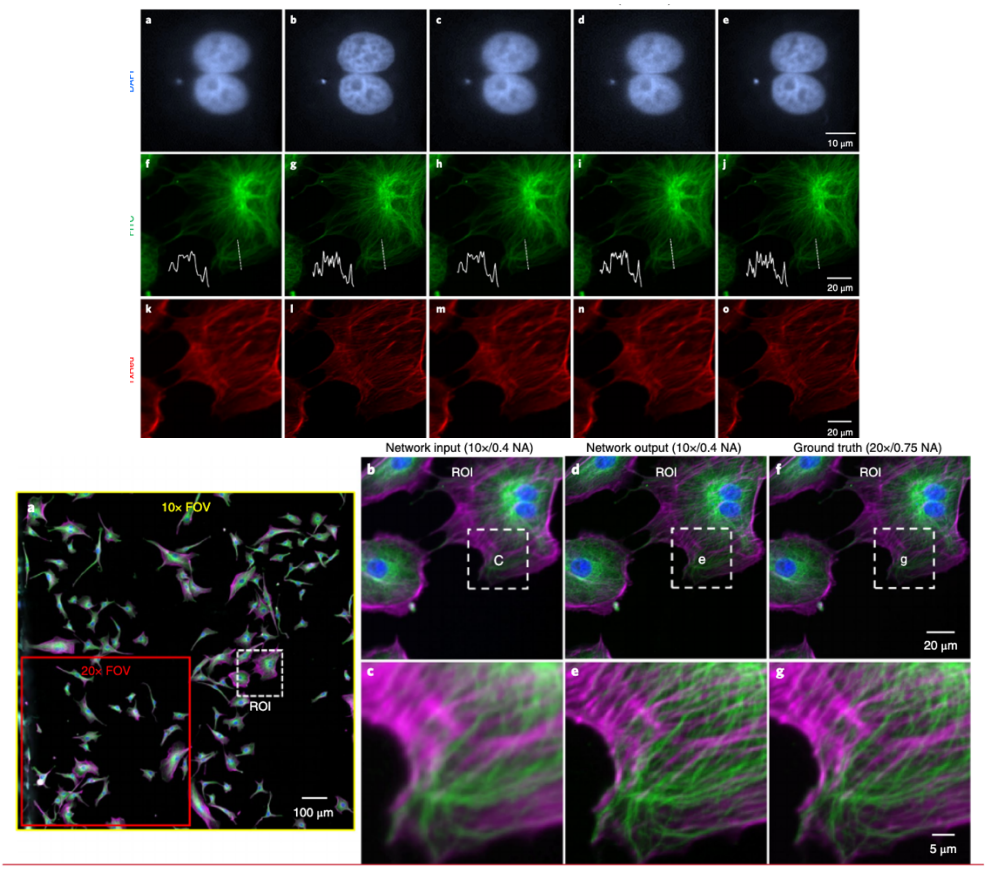
Paper 2. (from the link you sent me) A resolution adaptive deep hierarchical (RADHical) learning scheme applied to nuclear segmentation of digital pathology images

- **Link**
- **Images:** breast cancer images
- **Approach:** resolution adaptive hierarchical learning scheme where DL networks at lower resolution are leveraged to determine if higher levels of magnification are necessary to provide results of nuclear segmentation → so actually no high resolution creation here because I think the images are already in HR.

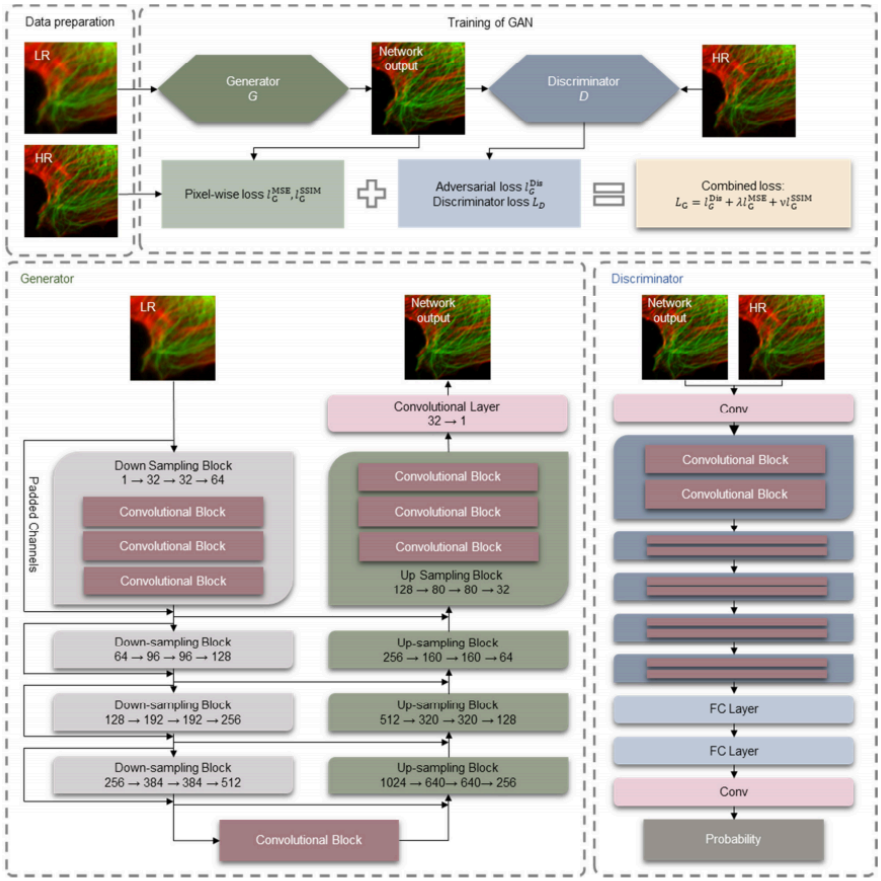


Paper 3. Deep Learning enables cross-modality super-resolution in fluorescence microscopy

- **Link for paper and additionnal information**
- **Images:** TIRF microscopy images of subcellular structures within cells and tissues



- **Network:** GAN Network



Supplementary Figure 13

The training process and the architecture of the generative adversarial network (GAN) that we used for image super-resolution.

Paper 4. Super Resolution Techniques for Medical Processing

- **Link**
- Gives a summary of all available techniques but no precise network. Also again images provided are more bone-like.